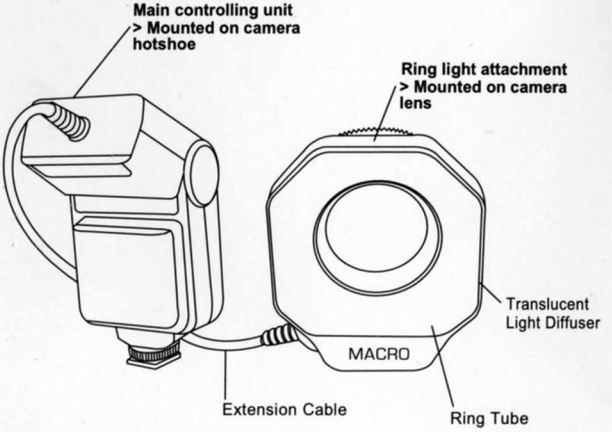
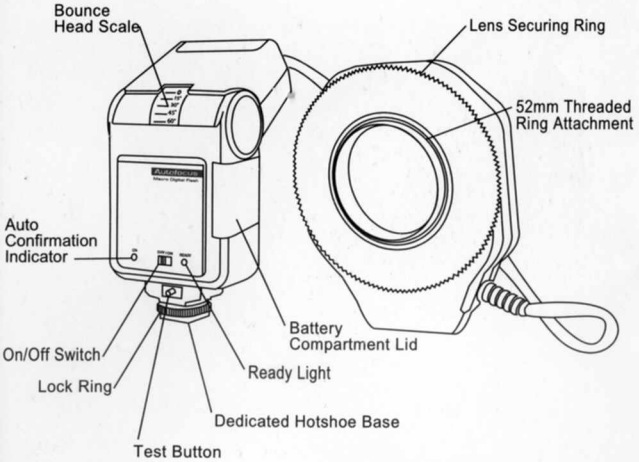
SMART FLASH by: PHOENIX

SmartFlash RF46

DIGITAL MACRO RING FLASH


Main controlling unit
> Mounted on camera hotshoe
Ring light attachment
> Mounted on camera lens
Translucent Light Diffuser
MACRO
Extension Cable
Ring Tube


Bounce Head Scale
Lens Securing Ring
52mm Threaded Ring Attachment
Auto Confirmation Indicator
Battery Compartment Lid
On/Off Switch
Ready Light
Lock Ring
Dedicated Hotshoe Base
Test Button

Adaptor Rings

MAIN FEATURES

- Guide Number: 46ft
- Automatic TTL flash exposure control
- IGBT fast recycling circuitry
- Flash exposure compensation control*
- Auto exposure confirmation
- Multiple mounting threads
- Suitable for macro, scientific, medical or hobby photography

* Camera body dependent features

PRECAUTIONS

Before you start to operate the macro ring flash, please read the following caution to prevent possible damages.

1. Do not attempt to use this macro ring flash unit on other brands of cameras other than the dedicated mounting of which it is intended for.
2. Any attempt to dismantle the main controlling unit and ring light attachment will result in possible electric shocks or burns. If the outer casing of any parts is faulty, please return to the authorized dealer for repairs by authorized personnel.
3. Do not attempt to trigger the flash close to eyes.
4. To maintain the optimize performance of the macro ring flash, do not fire the flash continuously for more than 10 times.After continuous firing, allow the flash to rest for 5 minutes before continuing.
5. When the flash unit is not used for more than 2 weeks, remove all batteries to prevent battery leakage.
6. Try to charge fully and fire the flash several times in a month to ensure that the electronic circuitry as well as the capacitor is kept in a tip-top condition.
7. During battery replacement, replace all 4 batteries of the same type at the same time.
8. Flash unit should be kept dry at all times as it is not either waterproof or weatherproof. Often it impractical to repair/ replace components damaged by water.
9. Care must be taken as this flash unit is a precise equipment. Any accident knocks or drop may result in permanent damage to the circuitry and components which may not be feasible to undergo repairs.
10. Always store the flash unit in a cool dry place, away from heat or direct sunlight. Never store the flash in a drawer or cupboard containing naphthalene or camphor (moth balls) as these will have a negative effects on the circuitry of the flash unit.
11. Do not use a thinner, benzene or other cleaning agents to remove dirt or fingerprint from the unit. Use a soft, moistened cloth instead.

INSTALLING THE BATTERIES

Ensure that the ON/OFF switch is in the OFF position. Slide the battery compartment Lid toward the back of the flash until the battery chamber is fully exposed. Insert 4 AA sized batteries according to the battery polarity indication as shown inside the battery chamber. Close the battery compartment lid by sliding it towards the front of the flash.

MOUNTING THE MAIN CONTROLLER UNIT ONTO THE CAMERA

Ensure that ON/OFF switch is at the OFF position. Slide the Hotshoe Base of the main controller unit onto the camera's hotshoe and fasten the lock ring in an anti-clockwise motion. To detach the flash unit, turn the locking ring in a clockwise motion until it stops.

Note:
If the camera inbuilt flash is in pop-up position, close it before mounting the flash unit.When attaching or removing the flash unit, grasp the bottom of the flash to prevent damage to the hotshoe foot and the camera hotshoe.

MOUNTING THE RING LIGHT ATTACHMENT ON THE CAMERA LENS

Check the diameter of the camera lens before mounting. If the camera lens mounting diameter is 52mm, position the 52mm threaded ring attachment directly onto the threaded camera lens and use the Lens securing ring to rotate in a clockwise position until it is reasonably secured.

In the event that the camera lens diameter is 58mm or 67mm, use the included adaptor rings and secure it onto the 52mm threaded ring attachment on the ring light attachment before mounting it onto the camera lens. (i.e. for 67mm thread, use the 67 - 52mm adaptor and secure it onto the 52mm threaded ring attachment before mounting it on to the camera lens).

OPERATING THE FLASH

Once the main controlling unit and the ring light attachment is properly secured, slide the ON/OFF switch to the left. When the ready lamp located the back of the flash light up, the flash is ready to fire. Pressing the flash test button will fire the flash to insure its operation.

USING THE AUTO CONFIRMATION INDICATOR

The green auto confirmation indicator located at the back of the flash is used to ensure that your subject is within the effective TTL range of the flash unit.

When the ready lamp is on, press the camera shutter release button to fire the flash. If your subject is within the effective TTL range, the green auto check lamp will illuminate for approximate 2 seconds indicating correct flash exposure has been obtained.

If the green auto check lamp does not illuminate, move closer to the subject and try again.

FULL AUTOMATIC TTL MACRO FLASH SHOOTING

When the camera shooting mode is set at P (Program AE) or Auto (Full Automatic) mode, automatic TTL flash exposure* will be activated to achieve a balance exposure between the subject and the background.Below are the steps that you need to follow to use the macro flash in Program TTL or Auto mode:

1. Ensure that the main controlling unit is properly secured to the camera hotshoe;
2. Ensure that the ring light attachment is properly secured to the thread of the camera lens;
3. Set the camera shooting mode to P or Auto mode;
4. Slide the ON/OFF switch to the ON position;
5. Check that the flash ready indicator in the camera viewfinder appears;
6. Focus on the subject and depress the shutter button;
7. To confirm that the flash unit fires the correct exposure, the Green auto check lamp will light up for approximate 2 seconds. In the event that the green lamp does not light up, retake the picture at a closer distance.

* On Canon DSLR/Powershot cameras, automatic TTL flash exposure is controlled by ETTL II/ETTL system
* On Nikon DSLR cameras, automatic TTL flash exposure is controlled by iTTL system.

SEMI AUTOMATIC AND MANUAL TTL MACRO FLASH SHOOTING

The macro ring flash can also be used with the camera set at any of the semi automatic or manual shooting mode (AV-Aperture) priority, TV-Shutter Speed priority, Manual Exposure). When used with any of the semi automatic or manual shooting mode, the macro flash exposure is automatic controlled by the camera TTL system.

AV Aperture Priority Mode

This mode permits you to set the aperture value manually while the shutter speed will be automatically set by the camera. When using this mode, the flash exposure will be automatic controlled by the camera base on the combination of shutter speed and aperture value.

TV Speed Priority Mode

This mode permits you to select your desired shutter speed* and the aperture value will be automatically selected by the camera. When using this mode, the flash exposure will be automatically controlled by the camera based on the combination of shutter speed and aperture value.

*Check with your camera manual for the maximum flash synchronization speed.

Manual Mode

This mode permits you to manually select your desired shutter speed and the aperture value. When using this mode, the flash exposure will be automatically controlled by the camera based on the combination of shutter speed and aperture value

FLASH EXPOSURE COMPENSATION

Even though the macro ring flash exposure is fully automatic, it is still possible to control the lighting intensity emitted by the ring tube by way of enabling the flash exposure compensation on the DSLR camera body which allow the flash exposure adjustment up to +/-3 stops in +/-0.3 stops increment*.

When the flash exposure compensation is activated on the DSLR camera body, the macro ring flash will emitted the lighting amount according to the flash exposure adjustment.

*For detail operating instructions on the flash exposure compensation setting, refer to your DSLR operating instruction manual.

TROUBLESHOOT GUIDE

If for some reasons the macro ring flash does not work properly, refer to the below troubleshooting guide.

Problem Issue	Possible cause(s)	Solution
Flash unit charges but does not fire	Batteries are exhausted	Replace all 4 batteries (recommended NiMH batteries)
	Metal contacts on either the flash unit or camera are dirty	Use microfibre cloth to wipe the metal contacts and remount the flash
Flash unit does not charge at all	Orientation of the batteries is wrong	Install again the battery polarity according to the indication in the battery compartment
	Battery compartment lid is not being close fully	Reopen the battery compartment lid and close it so that the end of the lid alight perfectly with the main body of the flash unit
	Metal contacts inside battery compartment is dirty	Use microfibre cloth to wipe the metal contacts and reload the batteries
	Batteries are completely exhausted	Replace all 4 batteries (recommended NiMH batteries)
Dark corners observed at the four corners of pictures	The focal length of the camera lens is set to wide angle	Adjust the focal length of the camera lens to 50mm (35mm equivalent) and above.
Auto check lamp does not lit up	Distance to the subject is too far and pictures may be underexposed	Retake at a closer distance
	Flash unit does not fire at all	Check that the ready lamp on the flash unit as well as the 'flash' indicator in the viewfinder appear before taking pictures
Ready Lamp does not lit up	Batteries are completely exhausted	Replace all 4 batteries (recommended NiMH batteries)

Technical Specifications

Camera Type	: Direct hotshoe contact mount flash
Guide No	: 46 in feet at 50mm (ISO 100)
Circuitry	: IGBT (Insulated Gate Bipolar Transistor)
Automatic TTL range	: 0 – 23ft (F2.0)
Dedication	: DSLR dedicated mounting
Exposure check confirmation	: Green Auto Check Lamp
Flash Duration	: 1/700 sec (full power)
Color temperature	: 5600k
Number of flashes	: Approximate 150 – 300 (Alkaline batteries) Approximate 100 – 200 (Ni-Cd, Ni-MH batteries)
Recycling Time	: Almost instantly (Automatic Mode) Approximate 4-6 seconds (Full Power)
Power Source	: 4x AA Alkaline, NiCad or NiMH batteries
Dimension (mm)	: 70 (W) x 45 (H) x 150(L)
Weight	: 250g (without batteries)

Specifications are subjected to changes without prior notice. The program in this flash unit is being upgraded constantly to meet new demands in the market. As such, new changes to the specifications may not be reflected in this manual.

FLASH FEATURES AVAILABLE ON CANON CAMERAS

Type	Model	Model No (US models)	Auto Adjustment to camera x-syn	Flash ready indicator in viewfinder	Red eye Reduction	ETTL Flash Control
Digital SLR EOS	5D	-	□	□	□	□
	20D	-	□	□	□	□
	30D	-	□	□	□	□
	40D	-	□	□	□	□
	300D	Rebel Digital	□	□	□	□
	350D	Rebel XT	□	□	□	□
	400D	Rebel XTi	□	□	□	□

FLASH FEATURES AVAILABLE ON NIKON CAMERAS

Type	Model	Auto Adjustment to camera x-syn	Flash ready indicator in viewfinder	Red eye Reduction	i-TTL Flash Control
Digital SLR	D40	□	□	□	□
	D40x	□	□	□	□
	D50	□	□	□	□
	D70	□	□	□	□
	D70s	□	□	□	□
	D80	□	□	□	□
	D200	□	□	□	□
	D300	□	□	□	□

Due to the rapid introduction of new digital cameras, the above compatibility ist may not be updated to indicate the respective new models at the time of printing this manual. Nevertheless, the flash unit is still compatible with new camera models that utilize the above flash control system.

□ - Function available **X - Function not available**

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